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10/538,717	06/13/2005	Yong-Keun Kim	P5093/TAN	7314

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EXAMINER	
DARNER, CHRISTOPHER J	
ART UNIT	PAPER NUMBER
3633	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/538,717	KIM, YONG-KEUN	
	Examiner	Art Unit	
	CHRISTOPHER J. DARNER	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *39-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *39-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 39, 40, 41, 42, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Patent # 6,860,672) in view of Baginski (U.S. Patent # 5,941,483) and further in view of Jobin et al. (U.S. Patent # 5,794,897).

With respect to claim 39, Kim teaches a wedge (4) having gradually decreasing thickness along with the axial direction, and a pair of locking sections along with both edges for firmly coupling the first and second reinforcing bar as axially slide advancing into said base sleeve at column 8, lines 59-62.

Kim does not teach a base sleeve forming an outer U shaped container with a flat bottom surface, two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves from end –to-end with same patterns of the semi-annular ribs for fitting the

semi-annular ribs and semi-cylindrical ridges of the first and second reinforcing bars. Baginski teaches a base sleeve forming an outer U shaped container with a flat bottom surface (14), two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves (between 36) from end –to-end with same patterns of the semi-annular ribs for fitting the semi-annular ribs and semi-cylindrical ridges of the first and second reinforcing bars in Figure 1 and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim to include a base sleeve forming an outer U shaped container with a flat bottom surface, two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves from end –to-end with same patterns of the semi-annular ribs for fitting the semi-annular ribs and semi-cylindrical ridges of the first and second reinforcing bars as taught by Baginski in order to connect two reinforcing bars in parallel together.

Kim discloses the claimed invention except for the cover sleeve. Rather, Kim discloses a cylindrical sleeve surrounding the entire bar. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to separate the base sleeve and the cover sleeve instead of one integral cylindrical sleeve, since it has

been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Nerwin v. Erlichman, 168 USPQ 177, 179.

Kim in view of Baginski does not teach a pair of locking parts along both edges of lateral walls. Jobin teaches a pair of locking parts (15), (25) along both edges of lateral walls in Figure 3 and Figure 5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim in view of Baginski to include a pair of locking parts along both edges of lateral walls as taught by Jobin in order to secure the base sleeve and cover sleeve together.

With respect to claim 40, Kim teaches a reinforcing bar coupler wherein said locking parts of the base sleeve are integrally formed a right-triangle shaped edge with inwardly slanted surfaces (27) at column 4, lines 21-24. Kim teaches said locking sections of the wedge (41) are integrally formed a right-triangle shape groove with outwardly slanted surfaces, both slanted surfaces having same slope for smoothly mating each other and press-bonding the first and second reinforcing bars at column 4, lines 59-63.

With respect to claim 41, Kim teaches a reinforcing bar coupler wherein intervals of the semi-annular grooves of said base sleeve have same that of the semi-annular ribs (13) of the first and second reinforcing bars, and outer surface of said base sleeve formed multiple of semi-annular ribs and longitudinal ribs same shape as the semi-annular ribs and longitudinal ribs of the first and second reinforcing bars at column 3, lines 40-49.

With respect to claim 42, Kim teaches a reinforcing bar coupler wherein an overall length of said base sleeve (2) is a half interval of the semi-annular ribs shorter than that of said cover sleeve at column 4, lines 30-33 and lines 39-41. Kim teaches a set of serrations formed at one end portion of the flat top surface (34) of the cover sleeve at column 4, lines 46-47. Kim teaches said wedge (4) forming a flat bottom surface (41) for contacting with said flat top surface (34) of the cover sleeve at column 4, lines 59-61. Kim teaches a set of serrations formed at one end portion of the flat bottom surface (42) of said wedge at column 4, lines 63-65. Kim teaches more than one groove (45) formed on said flat bottom surface along with axial direction, and a scale formed at outer surface at column 5, lines 4-8.

With respect to claim 43, Kim teaches a reinforcing bar coupler wherein an interval of the semi-annular grooves and semi-cylindrical ridges (21) of the base sleeve and the cover sleeve is a half that of the semi-annular ribs (13) of the reinforcing bars at column 3, lines 53-58.

With respect to claim 45, Kim teaches a wedge (4) having gradually decreasing thickness along with the axial direction, and a pair of locking sections along with both edges for firmly coupling the first and second reinforcing bar as axially slide advancing into said base sleeve at column 8, lines 59-62. Kim discloses a reinforcing bar coupler wherein the wedge forms a flat bottom surface with a serration, a chamfered edge at a thinner front end and a striking head at the thicker rear end for striking to insert, and a scale on the outer surface at column 4, lines 62-67 and column 5, lines 1-2.

Kim does not teach a base sleeve forming an outer U shaped container with a flat bottom surface, two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves from end –to-end with same patterns of the semi-annular ribs for fitting the semi-annular ribs and semi-cylindrical ridges of the first and second reinforcing bars. Baginski teaches a base sleeve forming an outer U shaped container with a flat bottom surface (14), two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves (between 36) from end –to-end with same patterns of the semi-annular ribs for fitting the semi-annular ribs and semi-cylindrical ridges of the first and second reinforcing bars in Figure 1 and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim to include a base sleeve forming an outer U shaped container with a flat bottom surface, two flat lateral surface and two rounded corners between said bottom and lateral surfaces and an inner W shaped dual half-cylindrical cavities with a top opening for mounting the first and second reinforcing bars laid in parallel, an inner surface of the W shaped dual half-cylindrical cavities formed a plurality of semi-annular grooves from end –to-end with same patterns of the semi-annular ribs for fitting the semi-annular ribs and semi-cylindrical ridges of the first

and second reinforcing bars as taught by Baginski in order to connect two reinforcing bars in parallel together.

Kim in view of Baginski does not teach a pair of locking parts along both edges of lateral walls. Jobin teaches a pair of locking parts (15), (25) along both edges of lateral walls in Figure 3 and Figure 5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim in view of Baginski to include a pair of locking parts along both edges of lateral walls as taught by Jobin in order to secure the base sleeve and cover sleeve together.

3. Claims 44, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Patent # 6,860,672) in view of Baginski (U.S. Patent # 5,941,483) and further in view of Jobin et al. (U.S. Patent # 5,794,897) as applied to claim 39 above, and further in view of Harris (U.S. Patent # 3,701,555).

With respect to claims 44 and 46, Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. Kim in view of Baginski in view of Jobin discloses the claimed invention except for the base sleeve and the wedge are made with uniform thickness of steel plate. It would have been an obvious matter of design choice to make the base sleeve and the wedge from a uniform thickness of steel plate in order to

reduce cost of manufacture, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level or ordinary skill in the art.

Kim in view of Baginski in view of Jobin does not teach said locking parts of the base sleeve are bent to have a clearance slightly less than a thickness of said locking sections of the wedge for tightly press-fitting to the clearance. Harris teaches said locking parts of the base sleeve (21) are bent to have a clearance (24) slightly less than a thickness of said locking sections of the wedge for tightly press-fitting to the clearance at column 2, lines 30-39. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim in view of Baginski in view of Jobin to include said locking parts of the base sleeve are bent to have a clearance slightly less than a thickness of said locking sections of the wedge for tightly press-fitting to the clearance as taught by Harris in order to secure elongate members to one another in axially aligned relationship.

Kim in view of Baginski in view of Jobin does not teach said locking sections of the wedge formed laterally bent-up and gradually decreased its height along with the axial direction, a striking head formed at the higher end and a scale formed on the outer surface. Harris teaches said locking sections of the wedge formed laterally bent-up (25,26) and gradually decreased its height along with the axial direction, a striking head formed at the higher end and a scale formed on the outer surface at column 2, lines 40-45 and column 3, lines 50-58. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim in view of Baginski in view of

Jobin to include said locking parts of the base sleeve are bent to have a clearance slightly less than a thickness of said locking sections of the wedge for tightly press-fitting to the clearance as taught by Harris in order to secure elongate members to one another in axially aligned relationship.

With respect to claim 47, Kim teaches a reinforcing bar coupler wherein said locking parts of the base sleeve are integrally formed a right-triangle shaped edge with outwardly slanted surfaces at both edges of the lateral walls at column 4, lines 59-63, a bottom surface of the wedge formed a serration, and a scale formed on the outer surface in Figure 1 and Figure 2.

Kim in view of Baginski in view of Jobin does not teach said locking sections of the wedge are integrally formed a U-shaped hook with inwardly slanted surfaces, both slanted surfaces have in same slope for smoothly mating each other and firmly press bonding the first and second reinforcing bars. Harris teaches said locking sections of the wedge (22) are integrally formed a U-shaped hook with inwardly slanted surfaces (33) and (34), both slanted surfaces have in same slope for smoothly mating each other and firmly press bonding the first and second reinforcing bars at column 2, lines 45-53. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kim in view of Baginski in view of Jobin to include said locking sections of the wedge are integrally formed a U-shaped hook with inwardly slanted surfaces, both slanted surfaces have in same slope for smoothly mating each other and firmly press bonding the first and second reinforcing bars as taught by Harris in order to secure the wedge to the coupler.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see 892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER J. DARNER whose telephone number is (571)270-3658. The examiner can normally be reached on Monday thru Friday 7:30AM to 4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian V. Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot/
Supervisory Patent Examiner, Art Unit 3635

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